

REMARKS

This is intended as a full and complete response to the Office Action dated July 20, 2004, having a shortened statutory period for response set to expire on October 20, 2004. Please reconsider the claims pending in the application for reasons discussed below.

In the specification, paragraph [0001] has been amended to correct the reference to the related patent.

Claims 1-22 and 47-59 are pending in the application. Claims 5-7, 12, 16, 22 and 53-59 are withdrawn from consideration by the Examiner and cancelled by the Applicant. Claims 1-4, 8-11, 13-15, 17-21 and 47-52 are rejected. Claim 8 is amended to clarify the invention and claim 10 is cancelled. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 8-11, 13, 15, 17-19, 47, and 51 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Japanese Patent No. JP2-121347 (*Okayama*), in view of U.S. Patent No. 6,677,594 (*Young*), or alternatively, over *Young* in view of *Okayama*. Claim 8 has been amended to clarify the invention. The *Okayama* reference teaches balls housed in a structure containing ball bearings that are used in combination with driving rollers and guide rollers to move a wafer as part of a wafer rotation system. The combined three types of devices are provided on a plurality of support boards. *Young* teaches a plunger supported by a coiled spring housed in a bore within an insert. The insert is mounted by a stud arrangement to a wafer support element. *Young* uses bores to support the plunger and does not suggest a socket with a support surface to support the plunger. Neither *Young* nor *Okayama* suggests a ball support surface in a socket. Therefore, *Okayama* and *Young*, alone or in combination, do not teach, show, or suggest a socket disposed in the support member and having a ball support surface, and one or more balls disposed on the ball support surface in the socket, the balls rotatably adapted to support the glass substrate in a spaced-apart relation to the support member, as recited in claim 8, and claims dependent thereon. Additionally, *Okayama* and *Young*, alone or in combination, do not teach, show, or suggest a ball rotatably disposed on the ball support surface in the socket, wherein the ball has a

surface roughness of 4 micro-inches or smoother, the ball adapted to contact and support a substrate thereon, as recited in claim 47, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Okayama* in view of *Young*, or vice-versa, and further in view of U.S. Patent No. 4,621,936 (*Hansson*). Claim 14 depends on claim 8, which is drawn to allowable subject matter as described above. *Hansson* suggests using a smooth rolling ball because it reduces the likelihood of corrosion from ink, not because it provides any support properties. It does not teach a substrate support ball, nor does it suggest alternative uses of the rolling ball. Therefore, *Okayama*, *Young*, and *Hansson*, alone or in combination, do not teach, show, or suggest the ball has a surface roughness of 4 micro-inches or smoother, as recited in claim 14. Withdrawal of the rejection is respectfully requested.

Claims 1, 3, 4, 20, 21, 49, and 50 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Okayama* in view of *Young*, or vice-versa, as applied to claim 8 above, and further in view of U.S. Patent No. 4,801,144 (*DeMasi, Jr., et al.*). *Young* and *Okayama* are discussed above. *DeMasi* teaches coating the balls within a road hockey puck with an anti-frictional coating. *DeMasi* does not suggest using the coating for any other application. Therefore, *Young*, *Okayama*, and *DeMasi*, alone or in combination, do not teach, show, or suggest a body having a first portion and a second portion, the first portion adapted to interface with the support member, a socket disposed in the second portion and having a ball support surface, and a ball rotatably disposed on the ball support surface in the socket, wherein the ball is at least one of coated or plated, the ball adapted to contact and support a substrate thereon, as recited in claim 1, and claims dependent thereon. Also, *Young*, *Okayama*, and *DeMasi* alone or in combination, do not teach, show, or suggest the balls are coated or plated as recited in claim 20, and claims dependent thereon. Finally, *Young*, *Okayama*, and *DeMasi* alone or in combination, do not teach, show, or suggest the ball is at least one of coated or plated as recited in claim 49, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Okayama* and *Young* in view of *DeMasi*, as applied to claim 1 above, and further in view of *Hansson*. Claim 2 depends on claim 1, which is drawn to allowable subject matter as described above. *Hansson* suggests using a smooth rolling ball because it reduces the likelihood of corrosion from ink, not because it provides any support properties. It does not teach a substrate support ball, nor does it suggest alternative uses of the rolling ball. Therefore, *Okayama*, *Young*, *DeMasi*, and *Hansson*, alone or in combination, do not teach, show, or suggest the ball of claim 1 has a surface roughness of 4 micro-inches or smoother, as recited in claim 2. Withdrawal of the rejection is respectfully requested.


Claims 48 and 52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Okayama* in view of *Young*, or vice-versa, as applied to claim 8 and 47 above, and further in view of U.S. Patent No. 4,706,793 (*Masciarelli*). Claim 52 depends on claim 8 which is drawn to allowable subject matter as described above. Claim 48 depends on claim 47 which is drawn to allowable subject matter as described above. *Masciarelli* teaches polished rollers with bores which contain plungers that are movable by means of an inflatable bladder. The surface of the rollers may be polished. *Masciarelli* does not suggest using a polished surface on any alternative support assembly nor does it suggest using its rollers in a substrate processing environment. Therefore, *Okayama*, *Young*, and *Masciarelli* alone or in combination, do not teach, show, or suggest the balls of claim 8 and 47 are electropolished, as recited in claim 48 and 52, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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